

DETAILED ACTION

Application Status

Claims 1-2, 4, 9-10, 18, 21-22, 25, 28-31 and 42-46 are currently pending in this application.

In response to a previous Office action, a non-final requirement (mailed on December 23, 2008), Applicants filed an amendment on March 03, 2008, In response to a previous Office action, a non-final action (mailed on 12/03/2007), Applicants filed a response and amendment received on March 03, 2008, amending claims 1-2, 4, 9-10, 18, 21-22, 25 and 28-29, canceling claims 3, 7, 19-20, 23-24, 26-27 and 34-41, and adding new claims 42-46 is acknowledged. Claims 5-6, 8, and 32-33 remain cancelled.

Claims 1-2, 4, 9-10, 18, 21-22, 25, 28-31 and 42-46 are under consideration and are present for examination.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert M. Barrett, the representative of the instant application on June 6, 2008.

The abstract has been rewritten on a separate sheet attached herewith as required by 37 CFR 1.72 (b).

Amend claims as follows:

Claims 1, 9-10, 21, and 28, replace “a chorismate mutase chain A gene” with “the chorismate mutase chain A gene”.

Claim 1, line 6, after “prophage” insert “wherein the addition of DNA comprises bacterial insertion sequence (ISS1)”.

Claims 4, 30-31 and 44 are cancelled.

Allowable Subject Matter

Claims 1-2, 9-10, 18, 21-22, 25, 28, 42-43 and 45-46 are allowed.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: The applicant has claimed a *Streptococcus thermophilus* bacterium resistant to attack by at least one bacteriophage, said bacterium comprising at least one of the modifications selected from the group consisting of addition of DNA in ORF 90 of the bacterial chromosome sufficient to disrupt expression of a chorismate mutase chain A gene, and deletion of at least part of ORF 1560 of the genome of a ϕ Sfi21 prophage in the bacterium to disrupt expression of said ϕ Sfi21prophage, wherein said modified bacterium of a strain of *S. thermophilus* selected from the group consisting of Sfi1 and Sfi1c16, where the addition of DNA comprises bacterial insertion sequence (ISS1). In view of Applicants' claim amendments, all prior rejections are withdrawn. A standard search did not

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produce any prior art that suggests or teaches the claimed invention. The claimed invention is novel and nonobvious over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Iqbal Chowdhury, Ph.D. whose telephone number is (571) 272-8137. The examiner can normally be reached on Monday-Friday from 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nashaat T. Nashed, can be reached at (571) 272-0934.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/I. C./

Examiner, Art Unit 1652

/Rebecca E. Prouty/
Primary Examiner,
Art Unit 1652

Abstract

The invention relates to an *S thermophilus* bacterium which is resistant to attack by at least one bacteriophage, a method of production of the bacterium and a composition which comprises the bacterium. The bacterium comprises a modification of the Sfi21 prophage or the bacterial genome which disrupts expression of a gene which is essential to a bacteriophage, but not essential to the bacteria.